

Ordered Molecular Presentation of Antigens, Method of Preparation and Use

Abstract

The invention provides compositions and processes for the production of ordered and repetitive antigen or antigenic determinant arrays. The compositions of the invention are useful for the production of vaccines for the prevention of infectious diseases, the treatment of allergies and the treatment of cancers. Various embodiments of the invention provide for a virus, virus-like particle, viral capsid particle, phage or recombinant form thereof coated with any desired antigen in a highly ordered and repetitive fashion as the result of specific interactions. In one specific embodiment, a versatile new technology based on a cassette-type system (AlphaVaccine Technology) allows production of antigen coated viral particles. Other specific embodiments allow the production of antigen coated hepatitis B virus-like particles or antigen coated Measles virus-like particles.